

# EFFLUENT

NPDES PERMIT NO: NC0024392 DISCHARGE NO: 001 MONTH: October YEAR: 1990  
 FACILITY NAME: Duke Power Company - McGuire Nuclear Station CLASS: II COUNTY: Mecklenburg  
 OPERATOR IN RESPONSIBLE CHARGE (ORC): Mark E. Bridges GRADE: III  
 CERTIFIED LABORATORY: Station Exempt/Central Lab ID 248

CHECK BLOCK IF ORC HAS CHANGED

Mail original and one copy to  
 ATT Central Files  
 Division of Environmental Management  
 N.C. Department of NRCD  
 PO Box 27687  
 Raleigh, North Carolina 27611

PERSON(S) COLLECTING SAMPLES: Jeff Benson

I CERTIFY THAT THIS REPORT  
 IS ACCURATE AND COMPLETE TO  
 THE BEST OF MY KNOWLEDGE

x Mark E. Bridges  
 Signature of operator in responsible charge

DATE	TIME 2400 CLOCK	COMPOSITE TIME	50050 (0001) 50050 81313 TGE 3D			Acute Toxicity																
			FLOW	EFF	INF																ENTER PARAMETER CODE ABOVE NAME AND UNITS BELOW	Temperature Fahrenheit
		HRS	BGD	F°	MG/L	MG/L	P-F															
1	2400		1.5	89.6																		
2	2400		1.5	90.1																		
3	2400		1.5	87.6																		
4	2400		1.5	84.4																		
5	2400		1.5	84.7																		
6	2400		1.5	84.9																		
7	2400		1.5	84.9																		
8	2400		1.5	84.9																		
9	2400		1.5	85.1																		
10	2400		1.5	85.6																		
11	2400		1.5	86.0																		
12	2400		1.5	86.7																		
13	2400		1.5	83.3																		
14	2400		1.5	75.0																		
15	2400		1.5	81.5																		
16	2400		1.5	74.1																		
17	2400		1.5	73.2																		
18	2400		1.5	72.9																		
19	2400		1.5	71.8																		
20	2400		1.5	71.2																		
21	2400		1.5	70.7																		
22	2400		1.5	70.5																		
23	2400		1.5	70.3																		
24	2400		2.0	70.2																		
25	2400		2.7	69.3																		
26	2400		2.7	68.0																		
27	2400		2.7	67.3																		
28	2400		2.7	66.9																		
29	2400		2.7	66.2																		
30	2400		2.7	65.8																		
31	2400		2.7	65.7																		
Average			1.8	77.0																		
Max.			2.7	90.1																		
Min.			1.5	65.7																		
Comp. C/Grab(G)																						
Monthly Limit																						

9012070137 901126  
 PDR ADOCK 05000369  
 R PDC

Facility Status: ( Please check one of the following)

All monthly averages and / or other limitation do meet permit monitoring requirements

( Compliant)

All monthly averages and / or other limitation do not meet permit monitoring requirements

( Noncompliant)

If the facility is noncompliant, please comment on corrective actions being taken in respect to equipment, operation, maintenance, etc. and a time table for improvements to be made.

( Attach additional sheets if necessary)

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I certify that this Report is accurate and complete to the best of my knowledge:

*W. A. Haller*

Signature of Permittee

PARAMETER CODES

00010 Temperature	00556 Oil and Grease	00950 Dissolved Fluoride	01077 Silver	39516 PCBs
00065 Stream Stage	00600 Total Nitrogen	01002 Total Arsenic	01087 Total Vanadium	39941 Roundup
00076 Turbidity	00610 Ammonia Nitrogen	01027 Cadmium	01092 Zinc	50047 Max. flow during 24-hr. period
00300 Dissolved Oxygen	00625 Total Kjeldahl Nitrogen	01032 Hexavalent Chromium	01105 Total Aluminum	50048 Min. flow during 24-hr. period
00310 BOD <sub>5</sub>	00665 Total Phosphorous	01034 Chromium	01147 Total Selenium	50050 Flow
00340 COD	00720 Cyanide	01037 Total Cobalt	31504 Total Coliform	50060 Total Residual Chlorine
00400 pH	00745 Total Sulfide	01042 Copper	31614 Fecal Coliform, MPN, Tube	71880 Formaldehyde
00500 Total Solids	00927 Total Magnesium	01045 Total Iron	31616 Fecal Coliform	71900 Mercury
00530 TSS	00929 Total Sodium	01051 Lead	32730 Total Phenolics	81318 Ferrocyanides
00545 Settleable Solids	00940 Total Chloride	01067 Nickel	38260 MBAS	85652 Time

The monthly average for fecal coliform is to be reported as a geometric MEAN.

If using alternate units for reporting data, please designate.

# EFFLUENT

NPDES PERMIT NO: NC0024392 DISCHARGE NO: 001 MONTH: OCTOBER YEAR: 1990  
 FACILITY NAME: Duke Power Company - McGuire Nuclear Station CLASS: II COUNTY: Mechanicburg  
 OPERATOR IN RESPONSIBLE CHARGE (ORC): Mark E. Bridges GRADE: III  
 CERTIFIED LABORATORY: Station Exempt/Central Lab ID 248

CHECK BLOCK IF ORC HAS CHANGED

Mail original and one copy to  
 ATT: Central Files  
 Division of Environmental Management  
 NC Department of NRCD  
 PO Box 27687  
 Raleigh, North Carolina 27611

PERSON(S) COLLECTING SAMPLES: CLEM BROWN

I CERTIFY THAT THIS REPORT  
 IS ACCURATE AND COMPLETE TO  
 THE BEST OF MY KNOWLEDGE

x Mark E. Bridges  
 Signature of operator in responsible charge

DATE	TIME 2400 CLOCK	COMPOSITE TIME	50050 00011 50050 B1313 TGE3D				Acute Toxicity																
			FLOW	ENTER PARAMETER CODE ABOVE																	Temperature Fahrenheit	Total Residual Chlorine	Hydrazine
			EFF <input type="checkbox"/>	NAME AND UNITS BELOW																			
			INF <input checked="" type="checkbox"/>																				
DAILY RATE																							
	HRS	BGD	F°	MG/L	MG/L	P-F																	
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8	1615			0.02																			
9	1445			0.05																			
10	1450			0.05																			
11	1330			0.05																			
12																							
13																							
14																							
15	1405			0.05																			
16	1405			0.03																			
17																							
18																							
19																							
20																							
21																							
22	1523			0.05																			
23	1513			0.05																			
24																							
25	1440			0.04																			
26	1345			0.05																			
27																							
28																							
29	1345			0.04																			
30	1410			0.05																			
31	1345			0.02																			
Average				0.04																			
Max.				0.05																			
Min.				0.02																			
Comp. (C) / Grab (G)				G																			
Monthly Limit																							

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( Attach additional sheets if necessary)

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I certify that this Report is accurate and complete to the best of my knowledge:

W A Halle  
 Signature of Permittee

PARAMETER CODES

00010	Temperature	00556	Oil and Grease	00950	Dissolved Fluoride	01077	Silver	39516	PCBS
00065	Stream Stage	00600	Total Nitrogen	01002	Total Arsenic	01087	Total Vanadium	39941	Roundup
00076	Turbidity	00610	Ammonia Nitrogen	01027	Cadmium	01092	Zinc	50047	Max. flow during 24-hr. period
00300	Dissolved Oxygen	00625	Total Kjeldahl Nitrogen	01032	Hexavalent Chromium	01105	Total Aluminum	50048	Min. flow during 24-hr. period
00310	BOD <sub>5</sub>	00665	Total Phosphorous	01034	Chromium	01147	Total Selenium	50050	Flow
00340	COD	00720	Cyanide	01037	Total Cobalt	31504	Total Coliform	50060	Total Residual Chlorine
00400	pH	00745	Total Sulfide	01042	Copper	31614	Fecal Coliform, MPN, Tube	71880	Formaldehyde
00500	Total Solids	00927	Total Magnesium	01045	Total Iron	31616	Fecal Coliform	71900	Mercury
00530	TSS	00929	Total Sodium	01051	Lead	32730	Total Phenolics	81318	Ferrocyanides
00545	Settleable Solids	00940	Total Chloride	01067	Nickel	38260	MBAS	85652	Time

The monthly average for fecal coliform is to be reported as a geometric MEAN.

If using alternate units for reporting data, please designate.



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*W a Haller*

Signature of Permittee

PARAMETER CODES

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# EFFLUENT

NPDES PERMIT NO: NC0024392 DISCHARGE NO: 001 MONTH: October YEAR: 1990  
 FACILITY NAME: Duke Power Company - McGuire Nuclear Station CLASS: II COUNTY: Mecklenburg  
 OPERATOR IN RESPONSIBLE CHARGE (ORC): Mark E. Bridges GRADE: III  
 CERTIFIED LABORATORY: Station Exempt/Central Lab ID 248

PERSON(S) COLLECTING SAMPLES: Clem Brown

CHECK BLOCK IF ORC HAS CHANGED   
 Mail original and one copy to:  
 ATT Central Files  
 Division of Environmental Management  
 N C Department of NRCD  
 PO Box 27687  
 Raleigh North Carolina 27611

I CERTIFY THAT THIS REPORT  
 IS ACCURATE AND COMPLETE TO  
 THE BEST OF MY KNOWLEDGE

x Mark E. Bridges  
 Signature of operator in responsible charge

DATE	TIME 2400 CLOCK	COMPOSITE TIME	50050 00011 50060 B1313 TGE3D				Acute Toxicity													
			FLOW	ENTER PARAMETER CODE ABOVE NAME AND UNITS BELOW	EFF <input type="checkbox"/>	INF <input checked="" type="checkbox"/>														
	HRS	BCD	F°	MG/L	MG/L	P-P														
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9	1515				0.03															
10																				
11	1400				0.03															
12																				
13																				
14																				
15	1450				0.03															
16																				
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18																				
19																				
20																				
21																				
22	1553				0.05															
23																				
24																				
25																				
26																				
27																				
28																				
29	1415				0.02															
30	1440				0.05															
31	1415				0.02															
Average					0.03															
Max					0.05															
Min					0.02															
Comp. (C) / Grab (G)					6															
Monthly Limit																				

Facility Status: (Please check one of the following)

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( Attach additional sheets if necessary)

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I certify that this Report is accurate and complete to the best of my knowledge:

*W. A. Hall*

Signature of Permittee

PARAMETER CODES

00010 Temperature	00556 Oil and Grease	00950 Dissolved Fluoride	01077 Silver	39516 PCBs
00065 Screen Stage	00600 Total Nitrogen	01002 Total Arsenic	01087 Total Vanadium	39941 Roundup
00076 Turbidity	00610 Ammonia Nitrogen	01027 Cadmium	01092 Zinc	50047 Max. flow during 24-hr. period
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( Attach additional sheets if necessary)

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I certify that this Report is accurate and complete to the best of my knowledge:

*W. A. Haller*

Signature of Permittee

PARAMETER CODES

00010 Temperature	00556 Oil and Grease	00950 Dissolved Fluoride	01077 Silver	39516 PCRS
00063 Stream Stage	00600 Total Nitrogen	01002 Total Arsenic	01087 Total Vanadium	39941 Roundup
00076 Turbidity	00610 Ammonia Nitrogen	01027 Cadmium	01092 Zinc	50047 Max. flow during 24-hr. period
00300 Dissolved Oxygen	00625 Total Kjeldahl Nitrogen	01032 Hexavalent Chromium	01105 Total Aluminum	50048 Min. flow during 24-hr. period
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00340 COD	00720 Cyanide	01037 Total Cobalt	31504 Total Coliform	50060 Total Residual Chlorine
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00545 Settleable Solids	00940 Total Chloride	01067 Nickel	38260 MBAS	85652 Time

The monthly average for fecal coliform is to be reported as a geometric MEAN.

If using alternate units for reporting data, please designate.

# EFFLUENT

**NPDES PERMIT NO.:** NC0024392      **DISCHARGE NO.:** 002      **MONTH:** October      **YEAR:** 1990  
**FACILITY NAME:** Duke Power Company - McGuire Nuclear Station      **CLASS:** III      **COUNTY:** Mecklenburg  
**OPERATOR IN RESPONSIBLE CHARGE (ORC):** Mark E. Bridges      **CERTIFIED LABORATORY:** Station Exempt/Central Lab ID 248      **GRADE:** III

CHECK BLOCK IF ORC HAS CHANGED   
 Mail original and one copy to:  
 ATT: Central Files  
 Division of Environmental Management  
 N.C. Department of NRCD  
 P.O. Box 27687  
 Raleigh North Carolina 27611

**PERSON(S) COLLECTING SAMPLES:** Jeff Reason  
 I CERTIFY THAT THIS REPORT IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE  
 Signature of operator in responsible charge: Mark E. Bridges

DATE	TIME 2400 CLOCK	COMPOSITE TIME	DAILY RATE	INF <input type="checkbox"/>	EFF <input checked="" type="checkbox"/>	FLOW	ENTER PARAMETER NAME AND UNITS BELOW	ENTER PARAMETER CODE ABOVE												
								MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	P-F	
1	0950		0.115			8.2	Total Residual Chlorine													
2	0850		0.436			7.5	Ammonia Nitrogen	1.37												
3	0850		0.349			8.0	Total Suspended Solids	5.1												
4	0835		0.557			7.1	Oil and Grease	<0.1												
5	1220		0.142			7.8	Hydrazine	<0.005												
6	1005		0.486			8.1	Total Phosphorous													
7	0905		0.504			7.8	Total Nitrogen													
8	0825		0.519			7.9	MBAS	<0.1												
9	0820		0.140				Sulfate	185.2												
10	0910					7.9	Lead	<100												
11	1000		0.753			7.8	Acute Toxicity													
12	1035		0.511			6.7														
13	0840		0.487			7.0														
14	1005		0.591			7.5														
15	0815		0.516			7.6		<0.005												
16	0855		0.138																	
17	0845					7.4														
18	0915		0.562			7.1														
19	0820		0.509			7.2														
20	0820		0.542			7.0														
21	0830		0.556			7.0														
22	0840		0.588			7.1														
23	0815		0.007																	
24	0820																			
25	0845																			
26	1015		0.027			6.8														
27	0950		0.532			6.8		<0.005												
28	0905		0.549			6.7														
29	0835		0.548			6.9		<0.005												
30	0829		0.331																	
31	0850																			
Average			0.417					<0.005												
Max.			0.591			8.2		1.37		5.1		<0.1		<0.005				<0.1		185.2
Min.			0.007			6.7						<0.005								
Monthly Limit																				

Facility Status: ( Please check one of the following)

All monthly averages and / or other limitation do meet permit monitoring requirements

( Compliant)

All monthly averages and / or other limitation do not meet permit monitoring requirements

( Noncompliant)

If the facility is noncompliant, please comment on corrective actions being taken in respect to equipment, operation, maintenance, etc. and a time table for improvements to be made.

( Attach additional sheets if necessary)

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I certify that this Report is accurate and complete to the best of my knowledge:

*Ma Haller*

Signature of Permittee

PARAMETER CODES

00010 Temperature	00556 Oil and Grease	00950 Dissolved Fluoride	01077 Silver	39516 PCBs
00065 Stream Stage	00600 Total Nitrogen	01002 Total Arsenic	01087 Total Vanadium	39941 Roundup
00076 Turbidity	00610 Ammonia Nitrogen	01027 Cadmium	01092 Zinc	50047 Max. flow during 24-hr. period
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00310 BOD <sub>5</sub>	00665 Total Phosphorous	01034 Chromium	01147 Total Selenium	50050 Flow
00340 COD	00720 Cyanide	01037 Total Cobalt	31504 Total Coliform	50060 Total Residual Chlorine
00400 pH	00745 Total Sulfide	01042 Copper	31614 Fecal Coliform, MPN, Tube	71880 Formaldehyde
00500 Total Solids	00927 Total Magnesium	01045 Total Iron	31616 Fecal Coliform	71900 Mercury
00530 TSS	00929 Total Sodium	01051 Lead	32730 Total Phenolics	81318 Ferrocyanides
00545 Settleable Solids	00940 Total Chloride	01067 Nickel	3826 MBAS	85652 Time

The monthly average for fecal coliform is to be reported as a geometric MEAN.

If using alternate units for reporting data, please designate.



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( Attach additional sheets if necessary)

See attached cover letter dated November 26, 1990

I certify that this Report is accurate and complete to the best of my knowledge:

*Ka Hall*

Signature of Permittee

PARAMETER CODES

00010 Temperature	00556 Oil and Grease	00950 Dissolved Fluoride	01077 Silver	39516 PCBs
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I certify that this Report is accurate and complete to the best of my knowledge:

*W. A. Fuller*

Signature of Permittee

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( Attach additional sheets if necessary)

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*W. A. Haller*  
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Signature of Permittee

PARAMETER CODES

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00400 pH	00745 Total Sulfide	01042 Copper	31614 Fecal Coliform, MPN, Tube	71880 Formaldehyde
00500 Total Solids	00927 Total Magnesium	01045 Total Iron	31616 Fecal Coliform	71900 Mercury
00530 TSS	00929 Total Sodium	01051 Lead	32730 Total Phenolics	81318 Ferrocyanides
00545 Settleable Solids	00940 Total Chloride	01067 Nickel	38260 MBAS	85652 Time

The monthly average for fecal coliform is to be reported as a geometric MEAN.

If using alternate units for reporting data, please designate.



Facility Status: ( Please check one of the following)

All monthly averages and / or other limitation do meet permit monitoring requirements

( Compliant)

All monthly averages and / or other limitation do not meet permit monitoring requirements

( Noncompliant)

If the facility is noncompliant, please comment on corrective actions being taken in respect to equipment, operation, maintenance, etc. and a time table for improvements to be made.

( Attach additional sheets if necessary)

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 -----  
 -----  
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I certify that this Report is accurate and complete to the best of my knowledge:

*Wa Haller*

Signature of Permittee

PARAMETER CODES

00010	Temperature	00556	Oil and Grease	00950	Dissolved Fluoride	01077	Silver	39516	PCRS
00065	Stream Stage	00600	Total Nitrogen	01002	Total Arsenic	01087	Total Vanadium	39941	Roundup
00076	Turbidity	00710	Ammonia Nitrogen	01027	Cadmium	01092	Zinc	50047	Max. flow during 24-hr. period
00300	Dissolved Oxygen	00625	Total Kjeldahl Nitrogen	01032	Hexavalent Chromium	01105	Total Aluminum	50048	Min. flow during 24-hr. period
00310	BOD <sub>5</sub>	00665	Total Phosphorous	01034	Chromium	01147	Total Selenium	50050	Flow
00340	COD	00720	Cyanide	01037	Total Cobalt	31504	Total Coliform	50060	Total Residual Chlorine
00400	pH	00745	Total Sulfide	01042	Copper	31614	Fecal Coliform, MPN, Tube	71880	Formaldehyde
00500	Total Solids	00927	Total Magnesium	01045	Total Iron	31616	Fecal Coliform	71900	Mercury
00530	TSS	00929	Total Sodium	01051	Lead	32730	Total Phenolics	81318	Ferrocyanides
00545	Settleable Solids	00940	Total Chloride	01067	Nickel	38260	MBAS	85652	Time

The monthly average for fecal coliform is to be reported as a geometric MEAN.

If using alternate units for reporting data, please designate.

## Effluent Aquatic Toxicity Report Form/Chronic Pass/Fail and LC50

Date 10-12-90

Facility <u>McGuire Nuclear Station</u>	NPDES# <u>NC0024392</u>	Pipe # <u>005</u> County <u>Mecklenburg</u>
Laboratory Performing Test <u>Duke Power Co. Bioassay</u>	Comments <u>First effluent sample used within 4 hours. See attached data sheets.</u>	
x <u>Bonnie H. Newton / One Vaughn</u> Signature of Operator/Lab Supervisor		

### North Carolina Ceriodaphnia Chronic Pass/Fail Reproduction Bioassay

#### Control Organism Reproduction

	Organism#											
	1	2	3	4	5	6	7	8	9	10	11	12.
# Young Produced	29	27	28	29	28	30	25	28	26	0♂	26	29
Adult (L)ive (D)ead	L	L	L	L	L	L	L	L	L	L	L	L

Chronic Test Results	
Calculated t	<u>0.5516</u>
% Mortality	Avg Reprod.
0 Control	27.7 Control
8 Treatment 2	28.2 Treatment 2
% control organisms producing 3rd brood	PASS FAIL
<u>92</u>	XXX
	Check One

#### Treatment 2 Organism Reproduction

	Organism#											
Effluent% <u>12</u>	1	2	3	4	5	6	7	8	9	10	11	12
# Young Produced	24	30	31	31	27	27	30	26	0♂	0♂	28	0
Adult (L)ive (D)ead * = crushed	L	L	L	L	L	L	L	L	L	L	L	D*

	1st sample		1st sample		2nd sample	
pH	Control	8.08.0	8.08.0	7.9	8.0	7.9 8.0
	Treatment 2	7.97.9	7.98.0	7.9	8.0	7.9 8.0
		start	end	start	end	start
		t	t	t	t	t
		1st sample	1st sample	2nd sample		
D.O.	Control	8.47.9	8.7 7.8	8.87.8		
	Treatment 2	8.47.7	8.7 7.8	9.17.8		

<b>Complete This For Either Test</b>			Test Start Date <u>10 / 01 / 90</u>	
Collection (Start) Date				
Sample 1 <u>10 / 01 / 90</u>		Sample 2 <u>10 / 05 / 90</u>		
Sample Type / Duration				
	Grab	Comp.	Duration	
Sample 1	XXX			Dilution
Sample 2	XXX			
Hardness (mg/l)			39	
Spec. Cond. (µmhos)			116	76 78
Chlorine (mg/l)			NA	NA
Sample temp. at receipt			21.8	0.4

#### LC50/Acute Toxicity Test

(Mortality expressed as %, combining replicates)

%	%	%	%	%	%	%	%	%	%
%	%	%	%	%	%	%	%	%	%

LC50 = _____ %	Method of Determination
95% Confidence Limits	Moving Average <input type="checkbox"/> Probit <input type="checkbox"/>
_____ % - _____ %	Spearman Karber <input type="checkbox"/> Other _____

Mail original to:

ATT: Environmental Sciences Branch  
 Div. of Environmental Management  
 N.C. Department of EHNR  
 P.O. Box 27687  
 Raleigh, N.C. 27611  
 DEM form AT-1 (3/87) rev. 9/89

Note: Please Complete This Section Also

start/end	start/end
Control	
High Conc.	
pH	D.O.

Organism Tested _____
-----------------------

## STATISTICAL ANALYSES

The Ceriodaphnia chronic toxicity test measures the chronic toxicity of whole effluents through both mortality and reproduction. Statistically significant toxic responses are to be detected using a t test (EPA/600/4-89/001, pg. 240) to compare mean reproduction in the effluent concentration and the control. As described in EPA chronic toxicity testing protocol (EPA/600/4-89/001) mean reproduction is calculated by summing the total number of young produced per female until either the time of death or the end of the experiment and dividing by the initial number of females exposed. An analysis of variance (ANOVA) provides an estimate of the pooled variance which is incorporated in the calculation of a t statistic. Based on a comparison of the calculated t value with the tabled critical value for a one-sided comparison at a 0.01 confidence level, effluent chronic toxicity is determined to be either a PASS or a FAIL. In the case where there is only one treatment to be compared with the control, this t statistic is comparable to the Student t statistic for comparison of means from independent random samples. The t value is to be reported with test results.

The LC50 (acute toxicity section) represents the expected concentration of effluent that is lethal to 50% of the test organisms within the test period. A statistical estimation method must be used to obtain an estimate of the LC50 from concentration/mortality data. Uncertainty is quantified through confidence intervals expressing the range of values within which the "true" LC50 could occur.

EPA acute toxicity testing protocols (EPA/600/4-85/013) detail several methods for estimating the LC50 and confidence intervals including: probit analysis, logit analysis, the Litchfield-Wilcoxon method, the moving average angle method, and the trimmed Spearman-Kärber method. The recommended method is the trimmed Spearman-Kärber method because it is both model free and robust (i.e., not sensitive to anomalous responses), however, any of the above methods is acceptable. Confidence limits are an essential part of LC50 estimation and are to be included in reported toxicity test data.

DUKE POWER PRODUCTION ENVIRONMENTAL SERVICES  
BIOASSAY SUBUNIT SAMPLE COLLECTION & CUSTODY RECORD

SAMPLE COLLECTION DATA

Station McGuire NS Location Waste Water Collection Basin

NPDES No. NC 0024392 Outfall 005 County Mecklenburg State NC

Sample Type:  Grab  24-h Composite (24 X 1/h)

Other: \_\_\_\_\_

Composite Sampler Used?  No  Yes: Make \_\_\_\_\_ Model \_\_\_\_\_

Composite Sampler ID No. \_\_\_\_\_ Sampler Chilled?  No  Yes

No. Sample Containers 1

Container Material:  LPE  PPE  Teflon  PVC  Glass  SS

Other: \_\_\_\_\_

Volume Per Composite Cycle \_\_\_\_\_ mL  Measured  Estimated

Total Sample Volume \_\_\_\_\_ mL  L  Measured  Estimated

Compositor Set By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
(Print)

Time of Initial Sample: Date \_\_\_\_\_ Time \_\_\_\_\_

Sample Collector John Velte Date 10-01-90 Time 0945  
(Print)

Sample Preservation?  No  Yes:  Iced  Other: \_\_\_\_\_

SAMPLE CUSTODY DATA

Relinquished By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Relinquished By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Samples Leaving DPC Custody:

Sealed/Locked By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Seal/Lock Opened By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

BIOASSAY SAMPLE LOG NUMBER: MN109001  
(Transfer to Label & Data Sheets)





MNI1090C5

CHLORAMPHENIC BETA CHEMICAL PURITY TEST INFORMATION AND ACTIVITY LOG

TEST MEASURE MS (005) - Chloramphenicol - October 1990

10000

1000

SAMPLE LOG NUMBER	DELIVER	TREATMENT PREPARATION	TREATMENT DELIVERY	FEEDING		REPEATABLE		TRANSFER BY	CHECKS BY	SUBJECT OBJECTS COLLECTED	OTHER OBJECTS COLLECTED
				Diet 1 Lbs./unit.	Diet 2 Lbs./unit.	Measured By	Standard By				
MNI109001	WNL-62	JSW / BGN	BGN	YTC-70 JSW	SC-41 JSW	JSW	BGN	JSW / BGN	JSW / BGN	-	-
-	-	-	-	YTC-70 BGN	SC-41 BGN	BGN	BGN	-	-	-	-
MNI109001	WNL-62	JSW / BGN	JSW / BGN	YTC-70 JSW	SC-41 JSW	BGN	BGN	BGN	BGN	BGN	-
-	-	-	-	YTC-70 JSW	SC-41 JSW	JSW	JSW	-	-	-	-
-	-	-	-	YTC-71 BGN	SC-41 BGN	BGN	BGN	-	-	-	-
MNI109002	WNL-62	WAF	KAF	YTC-71 KAF	SC-41 KAF	BGN	BGN	BGN	BGN	BGN	-
-	-	-	-	-	-	JSW	JSW	JSW	JSW	JSW	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

Please initial as appropriate  
 \*Notates checked 1 hr. post-initiation for random mortalities BGN  
 Replace random mortalities and make notes in the comment section of the appropriate treatment.



8009211

MN1090C5

EFFLUENT COLLECTION DATA

Grab Collected:

10/1/90	Time: 0945	By: JSV
10/3/90	Time: 1300	By: JSV
_____	Time: _____	By: _____
_____	Time: _____	By: _____
_____	Time: _____	By: _____
_____	Time: _____	By: _____
_____	Time: _____	By: _____
_____	Time: _____	By: _____
_____	Time: _____	By: _____

Composite Collected

From: _____	Time: _____	By: _____
To: _____	Time: _____	By: _____
From: _____	Time: _____	By: _____
To: _____	Time: _____	By: _____
From: _____	Time: _____	By: _____
To: _____	Time: _____	By: _____
From: _____	Time: _____	By: _____
To: _____	Time: _____	By: _____
From: _____	Time: _____	By: _____
To: _____	Time: _____	By: _____

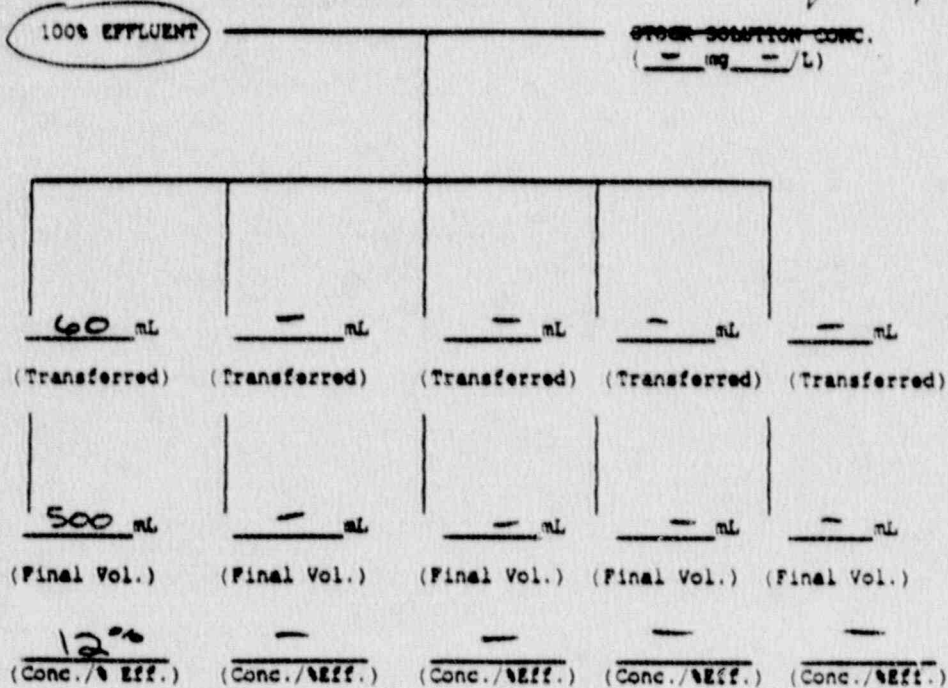
TOXICANT DATA

Toxicant: \_\_\_\_\_ Toxicant Lot Number: \_\_\_\_\_  
 Test Number: \_\_\_\_\_ Toxicant Source: \_\_\_\_\_  
 Source Concentration: \_\_\_\_\_  
 Source: Stock Solution Dilution (v/v): \_\_\_\_\_ mL \_\_\_\_\_ mL  
 (wt/v): \_\_\_\_\_ mL \_\_\_\_\_ mL

DILUTION SCHEME

Recorded by Bonnie J. Newton 9-28-90

Checked by: D.J. Coughlan 9/28/90



DO NOT DISPOSE OF EFFLUENTS, TOXICANTS, OR DILUENTS UNTIL REPORTS ARE FINALIZED

MN1090C5

CHLORAMPHENICOL OVER EXPOSURE  
 PROTOCOL NUMBER BIO-260.0

TEST McGuire NS (005) - Chronic <sup>P/E</sup>

Conc. of S. Effluent	Day	Replicate												Surv	Temp. (°C)	Comments		
		1	2	3	4	5	6	7	8	9	10	11	12					
CONTROL	Init.														25.2			
	1														25.2			
	2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0		25.4		
	3														25.5			
	4														25.5			
	5	5.6	5.5	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	0		25.7	
	6	5.9	5.11	5.13	5.12	5.10	5.11	5.9	5.12	5.10	5.0	5.12	5.10	1.8		25.4	#10 = 8	
	7																	
	8																	
	Total	29	27	28	29	28	30	25	28	26	0	26	29	305		25.5	Mean = 27.7	
TREATMENT 2 (12 Effluent)	Init.														25.4			
	1														25.1			
	2	5.0	5.0	5.0	5.0	5.0	5.0	3.0	3.0	3.0	5.0	5.0	5.0	0		25.5	#12 possibly injured in transit Rm 10-3-4	
	3														25.6			
	4														25.8			
	5	5.6	5.5	5.3	5.6	5.5	5.7	5.6	5.5	5.4	5.0	5.0	5.6	1.0		25.6		
	6	5.6	5.12	5.13	5.17	5.12	5.12	5.12	5.13	5.0	5.0	5.11	1		25.3	#9 = 10 one ♀		
	7																	
	8																	
	Total	24	30	31	31	27	27	30	26	0	0	28	0		25.4	Mean = 28.2		
<del>Blank</del>	Init.																	
	1																	
	2																	
	3																	
	4																	
	5																	
	6																	
	7																	
	8																	
	Total																	
<del>Blank</del>	Init.																	
	1																	
	2																	
	3																	
	4																	
	5																	
	6																	
	7																	
	8																	
	Total																	
<del>Blank</del>	Init.																	
	1																	
	2																	
	3																	
	4																	
	5																	
	6																	
	7																	
	8																	
	Total																	

(22) (23) (21) (19) (21) (22) (21) (19) (21) (23) (18) (19)

CHECKED BY: Keith A. Finley Numbers in parentheses indicate the originating brood sizes.  
 All organisms in a replicate are from the same adult.

- Record in order given:
- a) S = Alive, D = Dead
  - b) 0 - 30 = Number of live young,
  - c) E = Aborted embryos observed

ORIGAMIPIBIA DUBIA GENETIC TOXICITY TEST INFORMATION AND ACTIVITY LOG

MN1090C5

TEST #E-GWAUC NS (005) - Genetic <sup>9</sup>/<sub>16</sub> - October 1990

GENERATION	SAMPLE LOG NUMBER	DILUENT	TREATMENT PREPARATION	TREATMENT DELIVERY	FEEDING		TEMPERATURE		TRANSFER TIME	TRANSFERS BY	COUNTS BY	SURVIVAL & COUNTS RECORDED BY	COUNTING METHOD ACTION
					Diet 1 Lot/Init.	Diet 2 Lot/Init.	Measured By	Recorded By					
Y 1	MN109001	WNL-62	JSW, BGN	BGN	YTC-70 JSW	SC-41 JSW	JSW	BGN	1137	JSW BGN	JSW BGN	-	-
Y 2	-	-	-	-	YTC-70 BGN	SC-41 BGN	BGN	BGN	1105	-	-	-	-
Y 3	MN109001	WNL-62	JSW, BGN	JSW, BGN	YTC-70 JSW	SC-41 JSW	BGN	BGN	1130	BGN	BGN	BGN	-
Y 4	-	-	-	-	YTC-70 JSW	SC-41 JSW	JSW	JSW	1134	-	-	-	-
Y 5	-	-	-	-	YTC-71 BGN	SC-41 BGN	BGN	BGN	1135	-	-	-	-
Y 6	MN109002	WNL-62	KAF	KAF	YTC-71 KAF	SC-41 KAF	BGN	BGN	1138	BGN	BGN	BGN	-
Y 7	-	-	-	-	-	-	JSW	JSW	1137	JSW	JSW	JSW	-
Y 8	-	-	-	-	-	-	-	-	-	-	-	-	-

Please initial as appropriate

\*Neonates checked 1 hr. post-initiation for random mortalities  
 Replace random mortalities and make notes in the comments section of the appropriate treatment.